

ABSTRACT

A high precision force and displacement measuring device adapted to operate
5 in at least two directions, including signal multiplexing scheme providing multiple signal
channels to be transmitted through a single pick-up plate and sense amplifier, while
maintaining high isolation between the channels, as well as identical electrical
response characteristics of all channels. The device may be used in conjunction with a
movable stage (such as on an optical microscope) to perform mechanical
10 measurements on Micro Electro-Mechanical Systems (MEMS) devices.